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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/219,199 12/22/98 KRANSMO

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EXAMINER

WM01/0309

RAYMOND VAN DYKE  
JENKENS & GILCHRIST  
1445 ROSS AVENUE  
SUITE 3200  
DALLAS TX 75202-2799

WOL DETATIONS.Y

ART UNIT

PAPER NUMBER

2684

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/219,199

Applicant(s)

KRANS MO ET AL.

Examiner

Yemane Woldetatos

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-24 and 27-46 is/are rejected.
- 7) ☒ Claim(s) 2,3,25 and 26 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1, 5-8, 13, 14, 16-20, 23, 24, 28-31, 36, 37, 39-43 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Krasner (6133874).

Claims 1, 5-8, 13, 14, 16-20, 23, 24, 28-31, 36, 37, 39-43 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasner (6133874)Camp, Jr. et al. (6070078).

Claims 1 and 24. Krasner discloses in a wireless telecommunications system having a Base Transceiver Station and a mobile terminal equipped with a Global Positioning System (GPS) equipped receiver, the Base Transceiver Station having operational control of the GPS-equipped mobile terminal, a method for determining the approximate position of the GPS-equipped mobile terminal, said method comprising the steps of:

demodulating signals received from a multiplicity of GPS satellites at a reference GPS receiver, said reference GPS receiver being connected to the wireless telecommunications system and having a determinate physical location relative to the base transceiver station (BTS) (Fig. 7 and col. 14 lines 27-43);

recovering respective navigational data signals from each of said demodulated GPS signals (col. 14 lines 59-63);  
originating a request for approximate navigational information from the GPS-equipped mobile terminal to the Base Transceiver Station (col. 15 lines 42-52);  
transmitting recovered navigational data signals to the GPS-equipped mobile terminal responsive to said request for approximate navigational information (col. 15 line 65 to col. 16 line 22); and  
determining, within said GPS-equipped mobile terminal, and from said transmitted navigational data signals, the approximate location of the GPS-equipped mobile terminal (col. 17 lines 4-10);

Claims 5, 6, 17, 18, 28, 29, 40 and 41. Krasner discloses the method, wherein said step of originating said request for approximate locational information from the GPS-equipped mobile terminal to the Base Transceiver Station is responsive to activation of the mobile terminal (col. 42-48).

Claim 7, 19, 30 and 42. Krasner discloses the method, wherein said one designated number is associated with an emergency service (col. 15 lines 45-48).

Claims 8, 20, 31 and 43. Krasner does not exactly mention the method, wherein said step of originating said request for approximate locational information from the GPS-equipped mobile terminal to the Base Transceiver Station is responsive to a determination by the reference GPS receiver that the GPS signal strength at the GPS-equipped mobile terminal is inadequate to permit initialization of the reference GPS receiver associated with the GPS-equipped mobile terminal within a desired response time. However, Krasner discloses that if the received signal is

strong enough , approximate position can be found from a prior fix or general knowledge of location (col. 6 lines 46-57).

Claims 13 and 36. Krasner discloses in a wireless telecommunications system having a Base Transceiver Station and a mobile terminal equipped with a Global Positioning System (GPS) receiver, the Base Transceiver Station having operational control of the GPS equipped mobile terminal, a method for determining the approximate position of the GPS-equipped mobile terminal, said method comprising the steps of:

demodulating signals received from a multiplicity of GPS satellites at a reference GPS receiver, said reference GPS receiver being connected to the wireless telecommunications system and having a determinate physical location relative to the Base Transceiver Station (col. 14 lines 27-43);

computing an estimated location of said reference GPS receiver using said demodulated signals from said GPS satellites, which is inherent in the system;

originating a request for approximate location information from the GPS-equipped mobile terminal to the Base Transceiver Station (col. 15 line 42-52);

transmitting said estimated location of said reference GPS receiver from the Base Transceiver Station to the GPS-equipped mobile terminal responsive to said request for approximate locational information (col. 15 line 65 to col. 16 line 22); and

determining, within said GPS-equipped mobile terminal, and from said transmitted location of said reference GPS receiver, the approximate location of the GPS-equipped mobile terminal (col. 17 lines 4-10).

Claims 14 and 37. Krasner discloses the method, wherein said step of computing the estimated location of said reference GPS receiver further comprises the steps of: recovering respective navigational data signals from each of said demodulated GPS signals from said GPS satellites; and computing, from the respective navigational data signals, the location of said reference GPS receiver, which is inherent in the system.

Claims 16 and 39. Krasner discloses the method according to Claim 13, wherein said method further comprises, after said step of computing and before said step of originating, the step of storing said estimated location of said reference GPS receiver in said wireless telecommunications system (col. 12 lines 36-47).

Claim 23 and 46. Krasner discloses the method, wherein the estimated location of said reference GPS receiver is used as the approximate location of the GPS-equipped mobile terminal (col. 12 lines 47-55).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 9-12, 15, 21, 22, 27, 32-35, 38, 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasner.

Claims 4, 15, 27 and 38. Krasner does not mention the method, wherein said approximate navigational information comprises the identities of a plurality of GPS satellites within ranging

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distance, the orbital parameters associated with said plurality of GPS satellites, clock correction information and differential correction information associated with said plurality of GPS satellites. However, official notice is taken that navigational information comprising an identification is notoriously well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art to add to Krasner's satellite message data (col. 14 line 27) satellite's identification information in order to expedite setup operation.

Claims 9, 21, 32 and 44. Krasner discloses satellite message data broadcasting (col. 14 lines 33-37). Krasner fails to mention Short Message Service broadcast. However, official notice is taken that broadcasting short message service is notoriously well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art to add to Krasner's teaching short message service in order to optimize message transmissions.

Claims 10, 22, 33 and 45. Krasner does not disclose the method, wherein said step of transmitting is performed over a Broadcast Control Channel (BCCH) of the wireless telecommunications system. However, official notice is taken that transmitting over a broadcasting control channel is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art to add to Krasner broadcast control channel in order to avoid overloading important traffic channels.

5. Claims 11, 12, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view of Hermansson et al. (5987319).

Claims 11, 12, 34 and 35. Camp fails to teach the method according to Claim 1, further comprising the step of periodically transmitting a Timing Advance parameter from the Base Transceiver Station to the GPS equipped mobile terminal to dynamically compensate for varying

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distances between the GPS-equipped mobile terminal and the Base Transceiver Station.

However, Hermansson teaches Timing Advance parameter (col. 5 lines 11-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Krasner's teaching by Hermansson's in order to update the changing location information of the mobile terminal.

### *Allowable Subject Matter*

6. Claims 2, 3, 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2, 3, 25 and 26. The prior art fails to teach the method according to Claim 1, wherein said signals from the GPS satellites are Standard or precise Positioning Service signals received on L1 and L2 frequencies, said L1 and L2 frequencies being centered at about 1575.42 MHz and 1227.42 MHz.

### *Conclusion*

7.. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Denninger (5502446), Janky (5629693), Krasner (5812087), Taylor et al. (4445118), Mansell et al. (5223844), Eshenbach (5663735), Krasner (5841396) and Camp, Jr. et al. (6070078) teach method and system for determining position of a cellular mobile terminal using GPS system in a cellular communication networks.



8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yemane Woldetatos whose telephone number is 703-308-9596. The examiner can normally be reached on Monday thru Friday: 9-18:30, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter can be reached on 703-308-6732. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6306 for regular communications and 703-308-6296 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

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Yemane Woldetatos  
Examiner  
Art Unit 2684



yw  
March 7, 2001



DANIEL HUNTER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600